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10/666,084	09/19/2003	Janardhanan Radhakrishnan	010327-008110US	8982

20350 7590 02/28/2007		EXAMINER
TOWNSEND AND TOWNSEND AND CREW, LLP		MCCARTHY, CHRISTOPHER S
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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 December 2006</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22,25 and 27-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>12-18,20 and 22</u> is/are allowed.

6)☒ Claim(s) <u>1-3,8,10,11,19,21,25,27 and 29</u> is/are rejected.

7)☒ Claim(s) <u>4-7,9,28 and 30-34</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>19 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 8, 10, 19, and 21 recite the limitation "without the control processor" in claim language. There is insufficient antecedent basis for this limitation in the claim. There is no control processor in the parent claims of these dependent claims. The claims were not amended as stated in applicant's remarks.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-2, 11, 25, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Robinson U.S. Patent 6,963,926.

        As per claim 1, Robinson teaches a method for handling failures in a data plane of a plurality of data planes, the method comprising generating a partitioned data structure, wherein

the partitioned data structure is generated from a control processor including a failure detector,

and the data structure includes one or more partitions for each of the plurality of data planes,

each partition including routes for a source data plane to a destination data plane (column 6, line

65 – column 7, line 13, 40-50); sending one or more partitions from the partitioned data

structure to a data plane that is the source data plane in the routes (column 8, lines 28-30);

detecting a failure in a failed data plane in the plurality of data planes, wherein the failure

detector is configured to detect the failed data plane in the plurality of data planes (column 7,

lines 40-50); and notifying data planes other than the failed data plane in the plurality of data

planes that the failed data plane has failed (column 8, lines 28-30), wherein the notified data

planes do not send data for the one or more routes found in a partition associated with the failed

data plane (column 8, lines 28-30, wherein the NA node does not directly send data to the failed

ND node, but instead sends notification back to the preceding node NG).

As per claim 2, Robinson teaches the method of claim 1, wherein one partition includes

all routes from a source data plane and to a destination data plane (column 6, line 65 – column 7,

line 13).

As per claim 11, Robinson teaches the method of claim 1, further comprising separating

each partition in the partitioned data structure (column 6, line 65 – column 7, line 13).

As per claim 25, Robinson teaches a system for handling data plane failures, the system

comprising: a plurality of data planes; and a control processor (wherein a processing unit (or

even the node as the processing unit itself) is implicitly taught as to control the storage of tables,

receiving of messages, and distribution thereof in a node): a receiver configured to received

routes for route data, each route specifying source data plane in which data is sent and a

destination data plane in which data is received (column 8, lines 28-30, wherein NA receives

route data from NB); a failure detector configured to detect a failure in a data plane in the

plurality of data planes (column 7, lines 40-50); a data structure generator configured to generate

a data structure that groups the routes by a source data plane for each of the plurality of data

planes (column 6, line 65 – column 7, line 13); and a distributor configured to distribute the

grouped routes to each associated source data plane (column 86, lines 28-30), wherein the

plurality of data planes comprise storage for storing the grouped routes that are received from the

distributor (column 5, line 66, wherein it is implicitly taught that a storage means exists if the

node stores the tables).

As per claim 27, Robinson teaches the system of claim 26, wherein the control processor

comprises a notifier, the notifier configured to notify data plane of the failure (column 8, lines

28-30).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 3, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson in

view of Beshai et al U.S. Patent 6,744,775.

As per claim 3, Robinson teaches the method of claim 1. Robinson does not explicitly

teach the method further comprising removing any data partitions that have been received at the

data planes that have the failed data plane as the destination data plane. Beshai does teach

removing any data partitions that have been received at the data planes that have the failed data

plane as the destination data plane (column 13, lines 42-50, wherein routes are tagged/marked as

failure routes and will not be used until they are restored; this is consistent with the applicant's

specification in paragraph 0040, in that, clearing/removing does not explicitly mean deleting the

entries, but can also mean being marked inactive, or, removed from the active state, which is

what is implicitly taught by Beshai). It would have been obvious to one of ordinary skill in the

art at the time the invention was made to combine the routing table updating process of Beshai to

the routing table updating process of Robinson. One of ordinary skill would have been

motivated combine the routing table updating process of Beshai to the routing table updating

process of Robinson because Beshai teaches the reconfiguration of the routing tables upon a

failure therein (column 13, lines 42-50), an explicit desire of Robinson (column 8, lines 21-28 in

the overwriting of invalid routing data).

As per claim 29, Robinson teaches the system of claim 27. Robinson does not explicitly

teach wherein the data planes are configured to remove a partition associated with the failed data

plane upon the notification. Beshai does teach wherein the data planes are configured to remove

a partition associated with the failed data plane upon the notification (column 13, lines 42-50). It

would have been obvious to one of ordinary skill in the art at the time the invention was made to

combine the routing table updating process of Beshai to the routing table updating process of

Robinson. One of ordinary skill would have been motivated combine the routing table updating

process of Beshai to the routing table updating process of Robinson because Beshai teaches the

reconfiguration of the routing tables upon a failure therein (column 13, lines 42-50), an explicit

desire of Robinson (column 8, lines 21-28 in the overwriting of invalid routing data).

Allowable Subject Matter

5.   Claims 12-18, 20, 22 are allowed.

6.   Claims 4-7, 9, 28, 30-34 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

Reason for Allowance

7.   The following is an examiner's statement of reasons for allowance: When read as a whole

in combination with other limitations, claim 12 is allowable with respect to the limitation of

detecting when a failure in a failed data plane in the plurality of data planes has been resolved..

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-

3651. The examiner can normally be reached on M-F, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

csm